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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,536	07/28/2006	John Murkowski	US040118US	4273

28159 7590 08/17/2010
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
Briarcliff Manor, NY 10510-8001

EXAMINER

NGUYEN, HIEN NGOC

ART UNIT	PAPER NUMBER
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3768

MAIL DATE	DELIVERY MODE
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08/17/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,536	Applicant(s) MURKOWSKI ET AL.	
	Examiner HIEN NGUYEN	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/28/2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In view of the Appeal Brief filed on 06/04/2010, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burris et al. (US 5,924,988) in view of Wilkins et al. (US 6,663,569) and further in view of Allen (US 5,363,116).

3. Addressing claim 1, Burris discloses a flat panel display electrically coupled to the imaging electronics (see Figs. 1, 2 and 5, element 530); an articulating arm assembly to which the flat panel display is connected for adjusting the elevation and lateral position of the flat panel display with respect to the main body, the articulating arm assembly including a first arm movably mounted to the main body and a second arm movably connected to the first arm and to the flat panel display (see Fig. 5, first arm is element 570, second arm is element 560, connected by hinges 550 and 580 and see column 6, lines 12-20). However, Burris does not explicitly disclose a main body housing imaging electronics and a control panel coupled to the imaging electronics; a wheeled cart on which is mounted the main body and the flat panel display with the control panel on the front, the wheeled cart being adapted so that the cart can travel in the front direction; the arm includes a 4-bar linkage containing a pneumatic piston inside the linkage; an inter-arm locking mechanism, located on the first and second arms which is adapted to lock the two arms together in a stowed position when the two arms are lowered in line with the direction of travel. Wilkins discloses a main body housing imaging electronics and a control panel coupled to the imaging electronics (see Fig. 1, elements 18 is the control panel, element 12 is the cart that house the imaging electronics that couple to the control panel); a wheeled cart on which is mounted the main body and the flat panel display with the control panel on the front, the wheeled cart being adapted so that the cart can travel in the front direction (see Fig. 1, element 12); a 4-bar linkage containing a pneumatic piston inside the linkage (see Figs. 1-2, 5a, and col. 2, lines 13-col, lines 25, element 60 is the piston inside the 4-bar linkage, element 40 is the 4-bar linkage). Allen discloses an inter-arm locking mechanism, located on the first and

Art Unit: 3768

second arms which is adapted to lock the two arms together in a stowed position when the two arms are lowered in line with the direction of travel (see Fig. 2 and 3, the two arms are lower in line with the direction of travel and lock by the screw on in stow position). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Burris's system to include a main body housing imaging electronics and a control panel coupled to the imaging electronics; a wheeled cart on which is mounted the main body and the flat panel display with the control panel on the front, the wheeled cart being adapted so that the cart can travel in the front direction; a 4-bar linkage containing a pneumatic piston inside the linkage; an inter-arm locking mechanism, located on the first and second arms which is adapted to lock the two arms together in a stowed position when the two arms are lowered in line with the direction of travel as taught by Wilkins and Allen because a housing imaging electronics and a control panel couple imaging electronics on a wheeled cart allows the imaging system to be mobile; a 4-bar linkage containing a pneumatic piston inside the linkage for balancing the mass of the display; and the interlocking mechanism locks and folds the two arms together for convenient transportation of the support assembly.

4. Addressing claims 3-4 and 6, Burris discloses first and second arms connected together, connected to the main body and connected to the display panel (see Fig. 5, first arm is element 570, second arm is element 560, connected by hinges 550 and 580 and see column 6, lines 12-20). However, he does not disclose the second arm includes 4-bar linkage with pivot axes at both ends. Wilkins discloses the second arm includes a 4-bar linkage with pivot axes at both ends (see Fig. 2-3, col. 2, lines 13-37, elements 34 and 32 are the 4-bar linkage, elements A, B, A', B', A'')

Art Unit: 3768

and B'' are pivot axes). Allen discloses a user-operated lock release to cause the locking of the two arms to be released (see Fig. 2-3, in order to release the two arms the operator takes off the locking screw).

5. Addressing claims 7-9, Burris discloses the articulating arm assembly further includes a first vertical pivot axis located at an end of the first arm which is movably mounted to the first body and a second vertical pivot axis located at an end of the first arm which is connected to the second arm (see Fig. 5, elements 560 and 570); the articulating arm assembly further includes a third vertical pivot axis located at an end of the second arm which is connected to the flat panel display, and a horizontal pivot axis located at the end of the second arm which is connected to the flat panel display (see Fig. 4 and 5); the arc of travel of the first arm about the first vertical pivot axis is constrained to be less than 360° , and wherein the arc of travel of the second arm about the second vertical axis is constrained to be less than 360° ; (see Fig. 5, elements 560 and 570). It is inherent that the first and second arm can not travel 360° or more because other components of the system are in the way. The first and second arms would break if travel 360° or more.

6. Addressing claims 10-12, Burris does not disclose an adjustment mechanism for the piston to provide a balancing counter-weight force. However, Wilkins discloses an adjustment mechanism for the piston to provide a balancing counter-weight force (see Figs. 1-2, 5a, and col. 2, lines 13-col, lines 25, element 60 is the piston inside the 4-bar linkage, element 40 is the 4-bar linkage).

7. Addressing claim 13, Burris discloses wherein the first arm exhibits a fixed upward inclination from an end which is connected to the main body to a second end which is elevated above the connection to the main body (see Fig. 5, element 570 is the first arm that exhibits a fixed upward inclination from an end which is connected to the main body to a second end which is elevated above the connection to the main body). However, Burris does not disclose a second arm that includes a 4-bar linkage. Wilkins discloses a second arm that includes a 4-bar linkage for counter balance the weight (see Fig. 2-3, elements 32 and 34).

8. Addressing claim 14, Burris does not disclose wherein the 4-bar linkage includes first and second upper bars coupled between the first and third pivot axes and third and fourth lower bars coupled between the second and fourth pivot axes, wherein the first bar is rigidly connected to the second bar and the third bar is rigidly connected to the fourth bar. However, Wilkins discloses wherein the 4-bar linkage includes first and second upper bars coupled between the first and third pivot axes and third and fourth lower bars coupled between the second and fourth pivot axes, wherein the first bar is rigidly connected to the second bar and the third bar is rigidly connected to the fourth bar (see Fig. 2-3, col. 2, lines 13-37, elements A, B, A', B', A'' and B'' are pivot axes).

Response to Arguments

Applicant's arguments, see pages 7-10, filed 06/04/2010, with respect to the rejection(s) of claim(s) claim 1 under Burris and Wilkins have been fully considered and are persuasive.

Art Unit: 3768

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Burris, Wilkins and Allen. Applicant's argument about the inter-arm locking mechanism is being addressed by Allen in the rejection section above.

Applicant also argues that Wilkins teach away from the use of 4-bar linkage and piston to support and elevate flat panel display. Applicant argues Wilkin's 4-bar linkage and piston support and elevates an ultrasound system control panel which is heavier than a flat panel display. Applicant's argument is not persuasive because this is a system claim and Wilkins discloses a 4-bar linkage and piston structure that is capable of supporting and elevating flat panel display. The 4-bar linkage and piston disclose by Wilkins support a heavy ultrasound system control panel therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that this 4-bar linkage and piston is capable of supporting a lighter flat panel display.

Applicant argues the piston disclose by Wilkins does not provide counterbalance to the weight of the display. Applicant argues when the hydraulic valve is closed, the piston supports the control panel at whatever its current elevation is. Applicant's argument is not persuasive because in order to support the control panel at whatever its current elevation the piston and 4-bar linkage as a whole structure must provide a counter-weight force to the weight of the control panel.

Applicant argues Miller's assembly supports a heavy CRT monitor and not a flat panel display. Applicant argues there are several significant differences with Miller's assembly as compared with the inter-arm locking mechanism of claim 1 such as Miller's arms do not lock in a stowed position when lowered. Applicant's argument is not persuasive because examiner no

Art Unit: 3768

longer relies on Miller to disclose a user-operated lock release. New reference Allen discloses this lock release.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HIEN NGUYEN whose telephone number is (571)270-7031. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. N./
Examiner, Art Unit 3768

/Long V Le/
Supervisory Patent Examiner, Art Unit 3768